Remarks

The Examiner has rejected claims 8, 12 and 16 under 35 USC 112 second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Examiner has also rejected claims 1 and 3-16 under 35 USC 103(a) as being unpatentable over Nashua Corp. (WO 98/39755) in view of SAR PLC (EP 294,122).

The applicant's claim refers to an optical film comprising a layered product of a light scattering film that scatters and transmits light and comprises at least two phases having different refractive indices from each other, and a reflective polarizer by which light is selectively P/S converted, wherein at least one of the phases which has the greater refractive index in the light scattering film has pillar structures extending in the thickness direction of the film, and further where the refractive index changes gradually at the interface of the greater refractive index phase and another phase, and furthermore the transmittance of the film in the normal direction of the film is not less than 4 %.

As the Examiner has stated in his response Nashua does not expressly disclose a scattering film as comprising as least two phases of different refractive indices, wherein the phase having the greater refractive index has "pillar structures" extending in the thickness direction of the film wherein the refractive or the transmittance if the film in the normal direction being at least 4%.

SAR, PLC discloses a light scattering film comprising tubular microlenses.

Both Nashua and SAR do not refer to the specific characteristics and parameters of the transmittance of the optical film as related to the performance of the device

by the viewer, especially for optical films requiring the properties of transmitting light efficiently and displaying the image clearly without lowering the brightness at the time of transmission, and collecting the peripheral light from the front light source at the front side efficiently in the normal direction of the film at the time of reflection, particularly for a transflection type of liquid crystal device. Thus one of ordinary skill in the art would only learn from the prior art that the visual performance of the device relates to obtaining a bright display, but not what critical parameters would lead to an acceptable bright display.

The results presented by the applicant in the Declaration under rule 132 clearly show that a transmittance of at least 4% is necessary for the display to be visible. Below 4% transmittance the display is dark. This is an unexpected result which was neither disclosed by the prior art nor would lead one to anticipate such a result from the prior art. The prior art may suggest a bright display is desired but does not suggest that a particular critical value of transmittance (4% as determined by the applicant) is required before a bright display can be achieved. At the time of transmission, the greater the transmittance in the normal direction the brighter the display. Additionally, at the time of reflection the lower the transmittance at around +/-20° the brighter the display, since due to the unique shape "W" of the transmittance curve disclosed in the present invention (Fig. 4, 6, 8(a) and (b)), the light coming in at +/-20° is transmitted in the normal direction. From Table 1 it can be seen that the changes in performance in transmission are larger than in reflection; and, it has been found by the applicant that at or above the optimum level of 4% transmittance in the normal direction that the device gives a bright display, whereas below this level the device is dark.

Thus the applicant believes that the results presented in the Declaration clearly show unexpected results required to overcome the prior art rejection under 35 USC 103(a).

Dependent claims 8, 12 and 16 have been amended to claim a reflective polarizer film claimed in claims 1, 3 and 4 respectively where the said film is of a cholesteric liquid crystal type.

In view of the above amendments and remarks, the present application is believed to be in condition for allowance, and reconsideration of it is requested. If the Examiner disagrees, he is requested to contact the attorney for Applicants at the telephone number provided below.

Respectfully submitted,

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